



Tenants of the HMR

Classify

- To ensure hazardous materials are identified, packaged and handled safely and securely during transportation, hazardous materials are categorized into hazard classes and packing groups based upon the transportation risks.

Contain

- To minimize the consequences of an incident should one occur, the HMR require shippers to properly package the materials commensurate with the risks they pose in transportation.

Communicate

- To provide effective communication to transportation workers and emergency responders regarding the hazards of the materials being transported (e.g. shipping papers, package marking and labeling, and vehicle placarding). The HMR require shippers to provide emergency response information applicable to the material being transported.

Comply

- To improve awareness of and adherence to relevant laws and regulations, PHMSA evaluates risk, enforces safety standards, educates stakeholders, investigates incidents and failures, conducts research, and supports the emergency response community.





PHMSA: Rail Safety

- Classification and Characterization of Materials (49 CFR Part 173)
- Package Selection (49 CFR Part 173)
- Tank Car Standards (49 CFR Part 179)
- Operational Controls (49 CFR Part 174)
- Security Plans (49 CFR Part 172.800-822)
- Routing of Trains (49 CFR Part 172.800-822)
- Coordination with FRA (49 CFR Part 200-269)





Operation Safe Delivery

Stresses a comprehensive approach to address the risks associated with increased bulk shipment of flammable materials by rail.

- ☐ Product testing and analysis
- ☐ Inspections and enforcement
- ☐ Rulemaking
- ☐ Partnerships
- ☐ Public Outreach
- ☐ Aggressive Actions



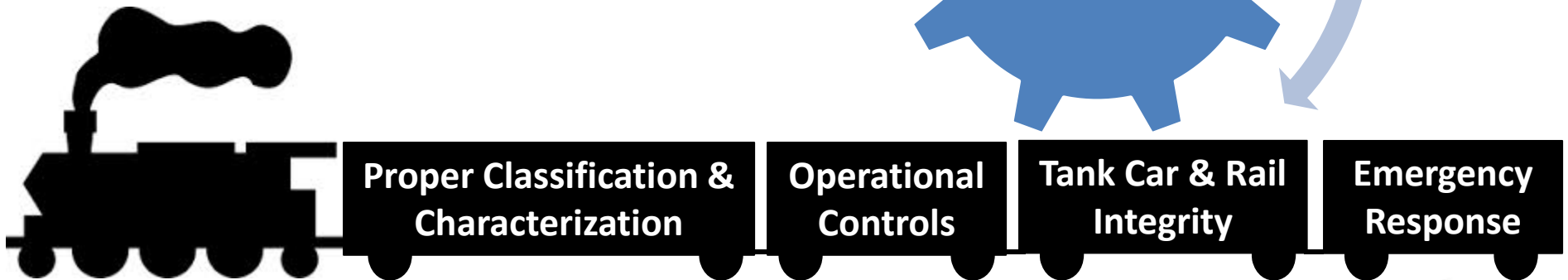
Focuses on prevention of rail accidents and mitigation of the consequences should a rail accident occur.





PHMSA's Role

Systematic Approach to Rail Safety






Regulatory Efforts

- **May 14, 2010:** PHMSA published a **final rule (HM-233A)** to amend the HMR to incorporate provisions contained in longstanding special permits with an established safety record.
- **January 25, 2011:** The FRA issued a **notice of FRA's approval** pursuant to PHMSA's May 14, 2010 final rule.
- **March 9, 2011:** PHMSA received a **petition (P-1577)** from the Association of American Railroads (AAR) requesting changes to tank car specifications.
- **Summer 2011:** At the AAR Tank Car Committee (TCC) meeting a **task force was created** to develop an industry standard for tank cars and operational controls for ethanol and crude oil trains.
- **April 2012 - October 2012:** PHMSA received an additional **three petitions** (P-1587, P-1595 and P-1612) and one modification of a petition (P-1612).






Regulatory Efforts

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- September 6, 2013:** PHMSA and FRA published the ANPRM.
 - December 5, 2013:** Comment period closes. Nearly 152,000 stakeholders expressed their views.
 - April 30, 2014:** The Department submits the NPRM for OMB review.
 - Now:** PHMSA and FRA working with OMB to publish NPRM
 - Future:** PHMSA, in coordination with FRA, is also considering other regulatory actions and will explore all regulatory avenues available to us to provide impactful improvements to rail safety.





Non-Regulatory Efforts

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- September 2012:** PHMSA Administrator **Quarterman** visits **Bakken** Region to observe operations at rail loading facilities.
 - December 2012:** FRA Begins **Bakken Rail Accident Mitigation Project**, which includes conducting hazardous materials safety inspections, increasing efforts to reduce highway-rail grade crossing accidents, and facilitating hazardous materials safety training seminars.
 - July 29, 2013:** In a letter to the American Petroleum Institute, DOT informed the industry that the FRA will utilize PHMSA's test sampling program to ensure that crude oil is being properly tested and classified for shipment in authorized tank cars.
 - August 2, 2013:** The FRA issued **Emergency Order No. 28**, requiring the railroads to properly secure rolling equipment. FRA and PHMSA also published a **Safety Advisory** recommending railroads take additional action to eliminate risk throughout the rail network.
 - August 27-28, 2013:** FRA and PHMSA hold **public meeting** on improving the safe transport of hazardous materials by rail, including a discussion on enhanced design specifications for tank cars commonly used to transport petroleum crude oil and ethanol.






Non-Regulatory Efforts

- **August 29, 2013:** FRA and PHMSA launch **Operation Classification** in the Bakken oil region to verify that crude oil is being properly classified in accordance with regulations. Includes activities such as unannounced inspections, data collection and sampling.
- **November 14, 2013:** PHMSA and FRA issued a **safety advisory** reinforcing the importance of proper characterization, classification, and selection of a packing group for Class 3 materials, and the corresponding requirements in the regulations for safety and security.
- **January 2, 2014:** PHMSA issued a **safety alert** to notify the general public, emergency responders and shippers and carriers that recent derailments and resulting fires indicate that the type of crude oil being transported from the Bakken region may be more flammable than traditional heavy crude oil.
- **January 16, 2014:** Secretary Foxx meets with rail company CEOs and API as part of the Department's Call to Action to discuss how to maintain our safety record even as domestic crude oil production and movement has increased.
- **February 10, 2014:** PHMSA met with emergency response stakeholders and industry groups to discuss training and awareness related to the transport of Bakken crude.





Non-Regulatory Efforts

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- February 2014:** The Department received finalized lists of agreed upon improvements from Call to Action participants.
 - February 25, 2014:** The Department issues Emergency Order requiring stricter standards for testing and classification of crude oil transported by rail.
 - March 6, 2014:** The Department issues an amended and revised EO to clarify requirements of the February EO.
 - May 7, 2014:** PHMSA and FRA issued a Safety Advisory requesting companies to take all possible steps to avoid the use of DOT 111 tank cars when transporting Bakken crude oil.
 - May 7, 2014:** The Department issues Emergency Order requiring railroad carriers to inform first responders about crude oil being transported through their towns and communities and for the immediate development of oil spill plans.
 - Now / Future:** Continue to evolve and expand Operation classification as well as enhance our outreach efforts to better inform the public and regulated community on crude oil and rail safety. Further PHMSA chemists are working with the API Standard Development Committee to develop guidance on characterization, classification, and quantity measurement of crude oil, using both lab and field testing techniques.





Public Outreach

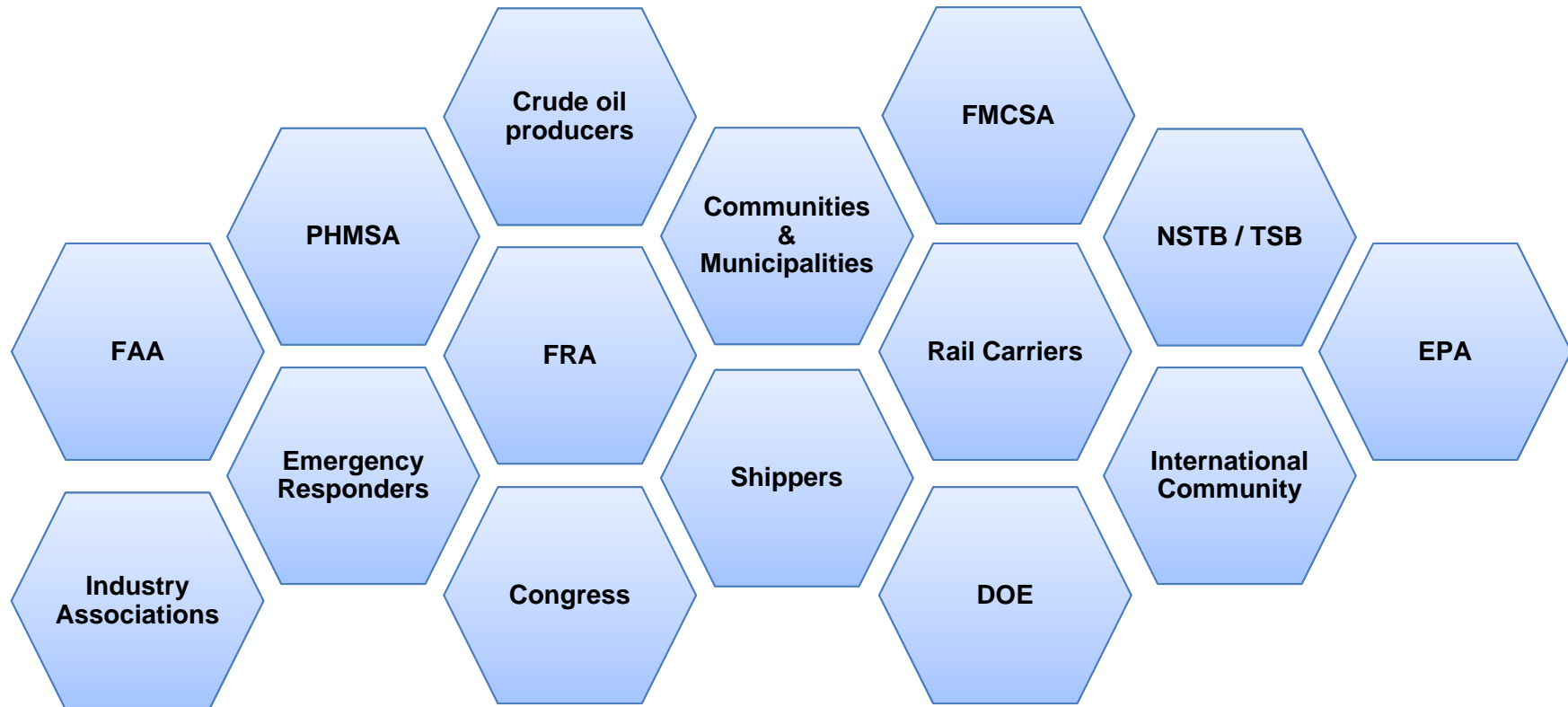
- **Operation Safe Delivery:** A website describes the Department's efforts to enhance the safe transport of flammable materials by rail and acts as a valuable resource for enhancing the safe transport of flammable liquids.
 - The site will be continuously updated to provide:
 - Progress reports on industry commitments as part of the “Call to Action”
 - Additional Departmental activities related to rail safety initiative.
 - Questions and Answers
 - Chronology of our actions in this arena
- **Hazardous Materials Safety Assistance Team**
- PHMSA is also diligently responding to both congressional and media inquiries on the subject of crude oil transport by rail.

<http://www.phmsa.dot.gov/hazmat/osd/chronology>





Stakeholders: Safety is Everyone's Goal



Below is the quote from Jack Whitley of U.S. DOT Pipeline and Hazardous Materials Safety Administration on the "new operational requirements" as presented at the June 25 IEPR workshop in Berkeley, CA.

"This rule proposes new operational requirements for certain trains transporting a large volume of flammable materials, improvements in tank car standards, and revision of the general requirements for offerors to ensure proper classification and characterization of mined gases and liquids. These new requirements are designed to lessen the frequency and consequences of derailments involving ethanol, crude oil, and certain trains transporting a large volume of flammable materials. The growing reliance on trains to transport large volumes of flammable materials poses a significant risk to life, property, and the environment. These significant risks have been highlighted by the recent derailments of trains carrying crude oil in Casselton, North Dakota, Aliceville, Alabama, and Lac-Mégantic, Quebec, Canada. The proposed changes also address National Transportation Safety Board (NTSB) recommendations on accurate classification, enhanced tank cars, rail routing, oversight, and adequate response capabilities."